IN THE CLAIMS

Claim 1. (Currently Amended) A mobile inter-mesh communication point, comprising:

a first wireless mesh network port configured to operate utilizing at least one IEEE 802.11x standard to participate on a first level wireless mesh network implemented using the at least one 802.11x standard, the first level wireless mesh network being different from the first wireless mesh network and utilized to implement a wireless access network; and

a second wireless mesh network port configured to operate utilizing at least one IEEE 802.16x standard to participate on a second level wireless mesh network implemented using the at least one 802.16x standard, the second level wireless mesh network being utilized to implement a wireless backhaul network, the backhaul network interconnecting the wireless access network with higher bandwidth communication resources.

Claim 2. (Original) The mobile inter-mesh communication point of claim 1, wherein the first wireless mesh network port and the second wireless mesh network port are each part of separate network elements.

Claim 3. (Original) The mobile inter-mesh communication point of claim 2, further comprising a communication link between the separate network elements.

Claim 4. (Original) The mobile inter-mesh communication point of claim 1, wherein the first wireless mesh network port and the second wireless mesh network port are part of one network element.

Claim 5. (Currently Amended) The mobile inter-mesh communication point of claim 1, further comprising switching/routing circuitry configured to interconnect said first wireless mesh network port with said second wireless mesh network port to enable data from the backhaul wireless mesh network to be routed onto the access wireless mesh network and to enable data from the access wireless mesh network to be routed to the backhaul wireless mesh network.

Claims 6-7. (Canceled)

Claim 8. (Original) The mobile inter-mesh communication point of claim 1, further comprising an interface to a DC power supply.

Claim 9. (Original) The mobile inter-mesh communication point of claim 8, wherein the interface to a DC power supply is configured to receive power from a vehicle power supply.

Claim 10. (Original) The mobile inter-mesh communication point of claim 9, further comprising a vehicle.

Claim 11. (Original) The mobile inter-mesh communication point of claim 1, further comprising a battery.

Claim 12. (Original) The mobile inter-mesh communication point of claim 1, further comprising a fuel cell.

Claim 13. (Currently Amended) The mobile inter-mesh communication point of claim 1, wherein the inter-mesh communication point is configured to be disposed in a vehicle having a vehicle battery for use in operating the vehicle, said mobile inter-mesh communication point being connected to said vehicle battery and obtaining power from said battery, the mobile inter-mesh communication point further comprising a battery discharge controller configured to monitor a battery level of the vehicle battery and to turn off the mobile inter-mesh communication point when the battery level of the vehicle battery drops below a threshold value and the vehicle is turned off.

Claim 14. (Currently Amended) The mobile inter-mesh communication point of claim 1, wherein the inter-mesh communication point is disposed in an emergency vehicle, and wherein the second wireless mesh network port is configured to ~~generate priority~~ prioritize emergency traffic for transmission over the second wireless mesh network.

Claim 15. (Currently Amended) A method of providing a dynamically adjusting mesh network topography, comprising:

enabling a first wireless mesh networking level implemented using at least one IEEE 802.11x standard, the first wireless mesh networking level implementing an access wireless mesh network;

enabling a second wireless mesh networking level implemented using at least one IEEE 802.16x standard, the second wireless mesh networking level implementing a backhaul wireless mesh network

enabling a first mobile inter-mesh communication point to participate in both the first wireless mesh networking level and the second wireless mesh networking level, the first mobile inter-mesh communication point being mobile within each of the first and second wireless mesh networking levels; and

permitting the first mobile inter-mesh communication point to transmit data between ~~onto~~ the first wireless mesh networking level and the second wireless mesh networking level ~~data received from a second mesh networking level implemented using at least one IEEE 802.16x standard~~.

Claim 16. (Original) The method of claim 15, wherein the first mobile inter-mesh communication point is enabled to participate in the first mesh networking level as a relay point.

Claim 17. (Original) The method of claim 15, wherein the first mobile inter-mesh communication point is allowed to transmit onto the first mesh networking level while moving.

Claim 18. (Original) The method of claim 15, further comprising selecting a second mobile inter-mesh communication point when the first mobile inter-mesh communication point moves away from users in the second mesh networking level.

Claim 19. (Original) The method of claim 15, further comprising establishing policy on the first mesh networking level; and requesting the policy to be implemented by the first mobile inter-mesh communication point.

Claim 20. (Original) The method of claim 19, further comprising not permitting the first mobile inter-mesh communication point to transmit onto the first mesh networking level data if the first mobile intermesh communication point fails to implement the policy.

Claim 21. (Original) The method of claim 15, further comprising enabling a mobile inter-mesh communication point to transmit a limited amount of self-generated data onto the first level mesh network.

Claim 22. (Original) The method of claim 15, further comprising selectively activating and deactivating the mobile inter-mesh communication point depending on where the inter-mesh communication point is in the first level mesh network in relation to a traffic density on the first level mesh network.

Claim 23. (Currently Amended) The method of claim 15, further comprising compensating an owner of a vehicle containing the first mobile inter-mesh communication point for permitting the first mobile inter-mesh communication point to transmit data between the first and second wireless mesh networking levels ~~onto the first mesh networking level the data received from the second mesh networking level~~.

Claim 24. (Currently Amended) The method of claim 23, wherein compensating comprises at least one of:

providing free access to the first mesh networking level;

providing reduced fee access to the first mesh networking level;

paying based on an amount of traffic handled by the mobil inter-mesh communication point; and

crediting an account associated with the inter-mesh communication point.

Claims 25-26. (Cancelled)

Claim 27. (Currently Amended) A vehicle, comprising:

a mechanical system including a motor and vehicle controls configured to ~~allow~~ selectively enable the vehicle to move;

an electrical system; and

an inter-mesh communication system connected to the electrical system and configured to communicate on two orthogonal mesh networks, the inter-mesh communication system comprising a first wireless mesh network port configured to operate utilizing at least one IEEE 802.11x standard to participate on a first level wireless mesh network implemented using the at least one 802.11x standard, the first level wireless mesh network implementing an access network, and a second wireless mesh network port configured to operate utilizing at least one IEEE 802.16x standard to participate on a second level wireless mesh network implemented using the at least one 802.16x standard, the second level wireless mesh network implementing a backhaul network to interconnect the access network to higher bandwidth communication resources;

wherein the inter-mesh communication system is active on both the first and second level wireless mesh networks at the same time and serves to route traffic between the first and second level wireless mesh networks.